

UMODPC



Convoy Movement Forms & Calculations 612-402-02

UMODEC



Convoy Operations and the UMO



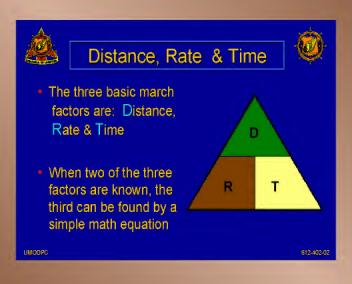
- Once given certain information about the highway movement (start times, end times, rest halts & locations), the UMO:
 - Prepares road movement graph
 - Prepares DD Forms 1265 & 1266
- The UMO should know the basic terms and formulas that are used in road movement planning

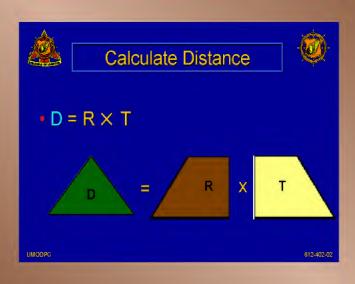


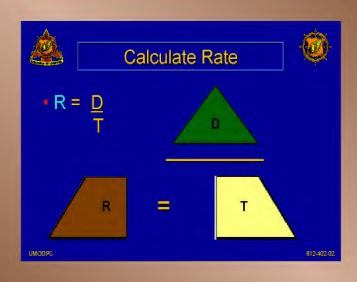
Terminology

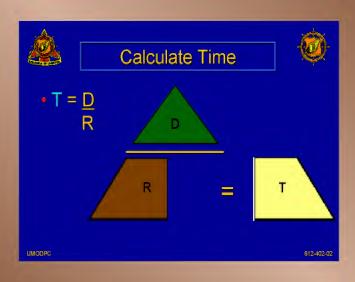


- Distance (D): How far a march column travels expressed in miles or kilometers
- Time (T): How long it takes to complete a move, including halts
- Rate (R): Kilometers or miles traveled in the hour (speed)











Time Distance Calculations



- · Time Distance:
 - The time required to move from one point to another at a given rate of march (Move from SP to CP1)

$$\frac{11 \times 60}{40}$$
 = $\frac{660}{40}$ = 16.5 minutes = 17 minutes

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D, R & T & DD Form 1265



- · Computation of the time it will take to arrive and depart a particular point is crucial
- · Computation results in ETAs and ETDs of march column at state lines, major road junctions, bridges, tunnels, checkpoints & other critical points
 • Must determine "Pass Time"

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Pass Time



- Pass Time: The length of time it takes for a serial or march unit to pass a fixed point
- Knowing how to compute pass time is essential to a planner who must calculate a convoy's ETD from a checkpoint

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Pass Time Computation



- Determine checkpoint time of arrival of the first vehicle in the convoy (distance/rate)
- Compute the convoy's pass time
- Add the two results (factoring in any halt time) together

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Pass Time Computation (Cont)



612-402-02

Pass time (minutes) =

Number of Vehicles imes 60

Density × Rate

Pass time + Time Gaps/Extra Time

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Road Movement Calculations -- Density



- · Density: Is the number of vehicles in a mile
 - TB 55-46-1 (Length of Vehicle)
 - Vehicle length is in inches
 - Add all vehicle lengths together
 - Divide by the number of vehicles
 - Divide the average length in inches by 36 (36 inches in a yard)
 - Equals average vehicle length in yards

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Road Movement Calculations -- Density - cont.



· Density:

Density = 1760 yards (1 mile)

Vehicle gap in yards + average vehicle length in yards

Avg Vehicle Gap = 100 YDS Avg Vehicle Length = 10YDS

Density =
$$\frac{1,760}{100+10}$$
 = 16 VPM

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Road Movement Calculations -- Density - cont.



- . Density: Is the number of vehicles in a mile
- TB 55-46-1 (Length of Vehicles)

M915/ M872	M 929A2	
M35A2C /M149	M 931A2	
M931/M871	M 998	
M127A2C	M923A2	
M35A2C	M109 WWN	

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Road Movement Calculations -- Density (Cont)



TB 55-46-1 (Length of Vehicles)

VEHICLE	LENGTH	VEHICLE	LENGT
M915/ M131A4C	542	M 929A2	276
M35A2C /M149	427	M 931A2	265
M931/M871	492	M998	187
M127A2C	352	M923A2	312
M35A2C	265	M109 WWN	282

- Add all vehicle lengths: 3400 inches
- Divide by the number of vehicles: 10 Vehicles
- * 3400 inches / 10 = 340 (Avg length of a vehicle)



Road Movement Calculations -- Density (Cont)



- · Density:
 - Divide the average length of vehicle: 340 inches
 - By 36: (36 inches in a yard)

$$\frac{340}{36}$$
 = 9.44 = 10 YARDS

- Always round up to the next yard

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Road Movement Calculations -- Density (Cont)



Density:

Density = 1760 yards (1 mile)

Vehicle gap in yards + average vehicle length in yards

Avg Vehicle Gap = 100 YDS Avg Vehicle Length = 10 YDS

Density =
$$\frac{1,760}{100+10}$$
 = $\frac{1,760}{110}$ = 16 VPM

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Road Movement Calculations -- Pass Time



- · Pass Time / Time Length:
 - Length of time it takes for the entire march column to pass a fixed point



Road Movement Calculations - Pass Time (Cont)



· Pass Time / Time Length:

Pass Time (in min) =
$$\frac{\text{Number of vehicles } X 60}{\text{Density } X \text{ Rate}}$$

$$\frac{20 \times 60}{20 \times 45} = \frac{1200}{900} = 1.33$$

= 2 minutes (always round up)

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Road Movement Calculations -- Time Gap



• + 0 FOR THE TIME GAP

$$\frac{20 \times 60}{20 \times 45} = \frac{1200}{900} = 1.33 = 2 \text{ mins } + 0 = 2$$
(always round up) (time gap) (Mins)

9 + 20 MIN FOR THE TIME GAP

$$\frac{20 \times 60}{20 \times 45} = \frac{1200}{900} = 1.33 = 2 \text{ mins } + 20 = 22$$
(always round up) (Mins) (Mins)

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DD Form 1265 & DD Form 1266

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DD Form 1265 Request for Convoy Clearance



- DD Form 1265 is the form completed by the UMO to request convoy clearance
- No convoy movement is permitted over public highways without a convoy clearance number (CCN)

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DD Form 1265



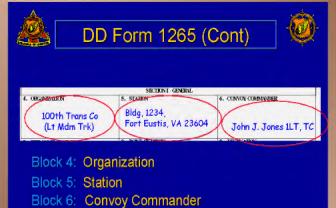
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Block 7: Personnel Strength

a. Officer b. Enlisted

Block 8: Point of Origin

Block 9: Destination

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SECTION II - CONVOY COMPOSITION

12. NUMBER OF EACH TYPE OF VEHICLE AND DESCRIPTION (Include row ad engagement)

- 1 1/4-ton Truck, Utility
- 20 5 ton Tractor w/19 stake and Platform Semitrailers (1 bobtail)
- 1 5 ton Wrecker

List of vehicles by type and model number. Include total number of each type and match vehicles with their assigned trailers.

13. TOTAL NUMBER | 14. NUMBER OF | 15. NO. OF STREAMS | 3. TIME INTERVAL. | 16. NO. OF MARCH | K. TIME EXTREM AS

Block 12: Number of Each Type of Vehicle & Description

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Block 13: Total Number of Vehicles

Block 14: Number of Oversize/Overweight Vehicles

Block 15a: No. of Serials b: Time Interval





13. TOTAL NUMBER OF VEHICLES	14. NUMBER OF OVERSIZE OVERWEIGHT VEHICLES	75. NO. OF SIMALS	S. TIME BYTERVAR	16s, NO. OF MARCH UNITS	10
		RECTION III	ROUTEDATA		

Block 16a: No. of March b: Time Interval Units





SECTION III - ROLLEDATA

Ft Eustis to Interstate 64, State Route 168, Interstate 64, Interstate

95. State Route 207, U.S 301 to Camp A.P Hill

List street/highway/road routing in order of use from Starting Point (SP) to Release Point (IRP).

Block 17: Proposed Routing (Indicate US Routes, State Routes, etc.)

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Block 18: List location of each halt and critical points

IS. ETA AND ETD AT STATE LINES, MAJOR ROAD JUNCTIONS, MAJOR BRIDGES AND TUNNELS, METROPOLITAN AREAS AND OVERVICHT HALT SITES (Continue on a separate sheet if additional space is required) a. LOCATION C. DATE OF PERMISON A ITD e. BATE (FTT MHOO) 0700 2001/09/15 0705 2001/09/15 Rt # 168 0732 0737 0754 0835 0814 15 min-Rest Halt. Rt #33 I-64 0840 I-95 0859 0904 Rt 207-301 0957 1002 SECTION IV - LOGISTICAL DATA

a. Location b. ETA c. Date d. ETD e. Date

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19. BRIEF CENERAL DESCRIPTION OF CARGO (finef general description, 1-4), organizational ambedian ents, etc.) (Within security in dations)

List general description of cargo.

Examples:

- · Troops with or without weapons · Any sensitive documents
- · Tanker filled or empty
- Hazardous Cargo

DD FORM 1265, 5 EP 1998 (EG)

PREVIOUS EDITION IS DESCRETE

Designation of Perform Pro. WYS/DIDR, Say 98

Block 19: Description of Load (a brief general description within security limitations)

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DD Form 1265 -- Back



s. CLASS b. AMOUNT		e. DESCRIPTION	4.75	4. VEHICLES TO BEUSED	
a. CLUSS	I. KHOUNT	e. Disk kiriton	(I) NO.	(C) TYPE	
		N/A			
		NNOT BE THANSPORTED COMMERCIALLY (Move			

Block 20: Are explosives to be transported? If no then mark box and place N/A in center



DD Form 1265 -- Back (Cont)



a CLASS 6.	A. AMOUNT	L. AMOUNT L. DESCRIPTION		HICLES TO BE USED
_			(I) N9A	(2) THE
1.3C	60 lbs o Cart	ridges, for small arms, blan		
		,		
			1	
1. STATEMENT	WHY EXPLOSIVES CANNOT	EL TRANSPORTED COMMENCIALLY (Movement on	norme explosives	under other danger
		ácable regulations or directives)	Cine .	

Block 20: Are explosives to be transported?

If yes, describe: Column a: Class

Column b: Amount Column c: Description

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-1	w	21	w	ч
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	90	-		w
		-	20	

a. Class	N. AMOUNT	4. DESCRIPTION	4. VEHICLES TO BE USED		
			disto armo		
1.3C	60 lbs	Cartridges, for small arms, blank	1 1/2 ton Trk		
	-				
STATEMENT	WHY EXPLOSIVE	CANNOT BE TRANSPORTED COMMERCIALLY (Montement) Inter-	Autor armineture autoline other danates		
		CANNOT BE TRANSPORTED COMMERCIALLY (Movements Invo-	long explosives and/or other doug		

Block 20: Column d: Vehicles to be used

(1) No. (2) Type

Block 21: Statement why explosives cannot be

transported commercially

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	REQUIRED AT CATEFORISHT HALTS' (g) (Us supposes short if different spec-		NO			
* DATE (FEST MMOD)	s. Installation	e. GAS (pab)	at Off. (pats)	e. RATIONS	E. BILLDET'S	E OTHER

Block 22: Logistical Support Required at Overnight Halt Sites? Yes or No

If yes, complete the following: a: DATE (YYYY/MM/DD)

b: INSTALLATION c: GAS (gals) d: OIL (gals)

e: RATIONS f: BILLETS g: OTHER

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Block 23: Remarks

23. REMARKS

This block is to be used to inform the chain of command of any unique convoy requirements.

- Planned location of fuel and meal halts.
- Types of radios
- Specific support requirements.
- List each oversized/over weight vehicle (truck or truck trailer combinations) with load description.

Note: Enter name, rank, telephone and fax number of convoy point of contact (POC) during normal duty hours.

4. REQUESTING AGENCY

18. APPROVING AGENCY

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100th Trans Co. (Lt /	Ndm Trk)	15. APPROA	ang scency
26. REQUESTED BY		27. APPROV	ED BY
Chestnut Charles		h. GEADS	Approved through
Charles C. Chestnut.	2001/08/28	& SOUNA	ITO/ UMC

Block 24: Requesting Agency

Block 26: Requested By:

Name, Grade, Title, Signature, & Date

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DD Form 1266 Request for Special Hauling Permit



- Completed by UMO or alternate UMO
- Forwarded in same channels as DD Form 1265
- Used to obtain special hauling permits for highway movement of oversize/overweight vehicles (as part of a convoy or separately)
- · Reference: FM 55-30, Appendix E



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DD Form 1266



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REQUEST FOR SPE	CIALHAULING PERMIT	VA 00081 C		3. BATE/FYPROMOD) 0000/08/28
	SECTO	ON I - GENERAL		
4. ORGANIZATION	a. STATION		6. DATE OF MOVES	ONT (TPPSAGA)/G

Block 1: Convoy Number

Block 2: UIC

Block 3: Date

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	RECTION 1 - GENERAL		
4. ORGANIZATION	5. STATION	6. DATE OF NOVEN	ENT(YYYHMHDD)
100th Trans Co (Lt Mdm Trk)	Fort Eustis, VA 23604	0000/08/28	s. completion 0000/08/28

Block 4: Organization

Block 5: Station

Block 6: Date of Movement:

a. Starting b. Completion

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Ft Eustis, VA			CAMP A.P Hill, VA				
D. ARRIVAL AT STATE BATE (FFFF MMDD)	LINES k. TIME:	N/A c. STATE LIPIE	10. ROLTING(Citymbar LE Route), State Routes, etc.)				

Block 7: Point of Origin

Block 8: Destination

Block 9: Arrival at State Lines:

a. Date b. Time c. State Line

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7. PONT OF ORGIN Ft Eustis, VA		S. DESTINATION CAMP A.P. Hill, VA
	N/A	IB. ROUTDIG/Espainte LE Router, State Souter, etc.)
a. DATE (FFFFMMCD) b. TOME	r. BTATE LINE	Ft Eustis to I-64, ST Rt #168,
		ST Rt.#33, I-64, I-95, ST Rt# 207
11. EXCORT REQUIREMENTS		ST Rt#301, to Camp A. P. Hill

Block 10: Routing

Block 11: Escort Requirements

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Section II - Vehicle and Load Data

DESCRIPTION	TIPE (2 day, atc.)	MO OF PRINCLES	REGISTRATION NUMBER	IUDGHT	wate £	uneni	woran
2. VEHELE		,					-
(I) TIBUCK							(Esp(y)
G) THUCKTHACTOR			-				(Exp(y)
(6) TRAILER							(Balify)
(4) SEMI-TRAILER							(Buply)
6) OTHER (Specify)							(Bays))
13. LOAD							
4. OVERALL (Fahicle and load)							
5. DESCRIPTION OF LOAD (Brief gare	eral description (remisorion h	epideomis, etc.) (Fithin securi	te limitations		





Section II - Vehicle and Load Data

	SEC 18	CAL TO ACTOR	CLE AND LOAD DA	E.F.		_	
DESCRIPTION A	THE Remarks ?	NO OF PRINCIPAL	REGISTRATION STREET	HEICHT	WINDING E	LENGTH	HOCHT k
2. VEHICLE							
d) TRUCK							(Esp(y)
e) TRUCKTRACTOR M915	25 ton						(Empty)
(9) THALLER							(galata)
(I) SINGTEALER M872	34 ton						(Bupty)
б) отна (Сресу́);							(Bupty)

Block 12 Vehicle Column a: Description

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		SECTI	ON E-VERD	CIE AND DOAD DAY	EA.			
heschwild a.	61	Prior etc.)	NO. OF VERBOLES	RECENTRATION NUMBER 6.	HISGRY #.	Walter Zini	LINCTE	WEGET
12. VEHICLE								
(i) TRUCK							-	(Eupty)
(2) TRUCKTRACTOR	M915	25 ton	1	9T1234				(Bepty)
(3) TRABLER								(Bupty)
(4) UMOTRADAR	M872	34 ton	1	8T9872				(Engly)
(5) OTHER. Gircaly?								(Bupty)

Block 12: Vehicle - Columns b. Type (2-Ton, etc)

c. No. of Vehicles d. Registration No.

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		SECT	ION II - VEHD	LE AND LOAD D	ATA			
DES CRIPTION		TVEE (1400, etc.) (c.	NG. OF VEHICLES 6.	REGESTRATION NUMBER &	HEIGHT	WIDTH L	LENGTH &	WEIGHT
12. VEIBCLE								
d) TRECK								(Bing)(y)
a) Trucktractor	M915		1	1234	131	123	269	18,621
(I) TRAILER								(Steept y)
(4) SEMI-TRABLES.	M872		1	9872	58/106	96	490	17.390
6) OTHER (Fpecify)					, 100			(Empty)

Block 12: Vehicle - Columns

e. Height f. Width g. Length h. Weight

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	SECT	ION III - VEHI	CIE AND LOAD BA	TA			
DESCRIPTION	(2-604, 41-2.) b.	NO. OF VEHICLES	NUMBER 4.	наент	KTOW 3	LENGTH #-	WHIGHT
(Specify)							
13. LOAD MILVAN		V		149	96	242	30,000

Line 13: Load --

e. Height, f. Width, g. Length, h. Weight

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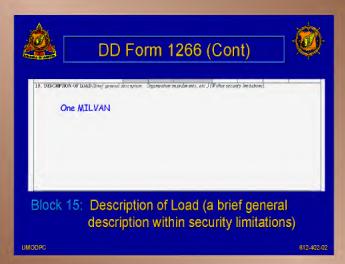


612-402-02

	KECT	ON II - VEHI	CIE AND LOAD DA	TA			
DESCRIPTION	Fire G-600, ef-LJ k	NO. OF VERDOLES	NUMBER 4	HEIGHT	WIDTH £	LENGTH 4-	WINGER
12. VEHICLE							
13. LOAD MILVAN				149	96	242	30,000
14. OVERALL (Francis and bod)				207	123	659	66,011

Line 14: Overall (Vehicle and Load) -- e. Height, f. Width g. Length, h. Weight

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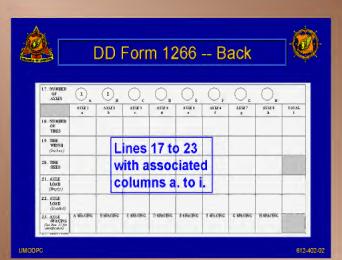


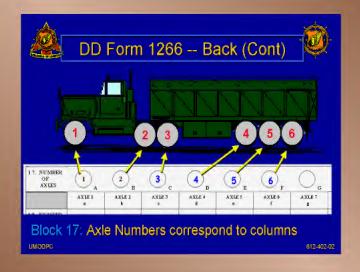


Block 16: Load Overhang

a. Front b. Rear c. Left Side d. Right Side

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	ATTEL	AME:	AILE 1	ATH 4	ADDES A	ATTE	AXIE?	ACTUE	TOTAL 1
IR. MINIER OF TRES	2	4	4	4	4	4			22
19. TIPE VALUE (Scrips)	22	44	44	44	44	44			242
20. TIPE SIZES	1100 x20	1100 ×20	1100 ×20	1100 ×20	1100 x20	1100 ×20			
21. OLE LOSD (But)									3601
12. ASSE 10AD (Loudel)									6601
25. ACRE SPACING (So for 17 for stook acre)	T BIVGMC	BERMERG	CHNCING	DISPACENG	19900	7 SEMING	O SPACING	Hamonic	1

Line 18 i Line Total

Line Total

Line 21 i Line Total

Line 22 i Line Total

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Table N-1, FM 55-30



Percentages for axle weight distribution

Number of Axles per Vehicle	Type of Vehicle	Axle 1	Axle 2	Axle 3	Axle 4	Axle 5	Axle 6
3	1-1/4ton	.38	31	.31			
	2-1/2ton	.32	.34	.34			
	5 ton	.26	.37	37			
	10 ton	.24	.38	.38			
5	Semitrailer	.14	.21	.21	.22	.22	
6	Semitrailer	.08	.22	.22	.16	.16	.16

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Block 21: Axle Load (Empty)

Block 22: Axle Load (Loaded)

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	17. NUMBER CF AXIES	(1) _A	(1) _B	3),	4,	(5) _E	(6) _F	0.	O _B	
ı		AMZI	AXEE E	ASSE 1	ASSES 4	AXLES	ANTE 6	ARLET E	ATTEN h	FORM.
	16. NUMBER OF TRES	2	4	4	4	4	4			22
	19. THE WOTH (School	22	44	44	44	44	44			242
	20. THE SEES	1100 ×20	1100 ×20	1100 ×20	1100 x20	1100 x20	1100 x20)
r	LOAD (Supply)	2881		7922	5672	5672	5672			3601
	22. AXIE LOND (Londed)	5281	14522	14522	10562	10562	10562			6601
1	23. AXIE SPACING (20. No. 17 for directions)	THE	BRIMCHG	CAMCNO	DAMONG	ENRAGING	FRECOR	сыванс	HWACHC	
	24. REMARKS		_	-	_	_			_	





Block 23: Axle Spacing 17. NUMBER CV AXTES (1) B 3, 4, (5), (b)₊ AUZ I ASSE 2 AXIE 1 ANTE 4 AXLES ANTE 6 ARLET ATTEN TOTAL 16. NUMBER 4 4 4 4 4 22 TRES 19. THE PAIDTH 242 44 44 44 44 44 (Sehu) 1100 1100 30. THE SEES x20 x20 x20 x20 21 - AXU LOLD (Boyly) 7922 7922 5672 5672 5672 36011 2881 22, 6302 14522 14522 10562 10562 10562 1000 5281 66011 48 48 100 48 48 24. REMARKS

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DD Form 1266 Back (Cont)	@
25. MAYADERT EN HEZRIAN B ESSENTIAL TO RATERAL EMPINE BY THE INTERNST OF NATURAL EMPINE 26. SECURITING ALENCY BIOCK 24: Remarks	
UMODPC	612-402-02

